

> d his ful

(FILE 'HOME' ENTERED AT 23:47:56 ON 25 JUN 2002)

FILE 'EMBASE, BIOSIS, EUROPATFULL, JAPIO, ADISALERTS, ADISINSIGHT, ADISNEWS, BABS, BIOBUSINESS, BIOCOMMERCE, BIOTECHNO, CANCERLIT, CAPLUS, CBNB, CEN, CIN, CONFSCI, DGENE, DIOGENES, DRUGB, DRUGLAUNCH, DRUGMONOG2, DRUGNL, DRUGU, DRUGUPDATES, EMBAL, ESBIODASE, ...' ENTERED AT 23:48:16

ON

25 JUN 2002

L1

CITRIC

112 SEA (CALCIUM OR (CALCIUM AND MAGNESIUM)) AND ((ACID? OR

OR MALIC OR CALCIUM) (10A) (EQ OR EQUIV?)) AND (INULIN? OR FRUCTOOLIGOSACC? OR FRUCTO-OLIGOSACC?)

L2

D3

30 SEA L1 AND (ISOFLAVONE OR VITAMIN D OR VITAMIN K OR VITAMIN

OR VITAMIN D".SUB."3 OR MALTOL OR CARRAGEENAN OR MALTODEXTRIN OR MALTO DEXTRIN OR XANTHAN GUM OR VITAMIN E OR DAIDZEIN OR GENISTEIN OR GLYCITEIN)

L3

29 DUP REM L2 (1 DUPLICATE REMOVED)

D 1-29

D 13 KWIC

L4

82 SEA L1 NOT L2

L5

82 DUP REM L4 (0 DUPLICATES REMOVED)

D 1-82

BEST AVAILABLE COPY

ACCESSION NUMBER: 1993:448289 CAPLUS  
 DOCUMENT NUMBER: 119:48289  
 TITLE: Effects of **fructooligosaccharides** and other  
 saccharides on **calcium**, **magnesium**,  
 and **phosphorus** absorption in rats  
 AUTHOR(S): Ohta, Atsutane; Osakabe, Naomi; Yamada, Kazuhiko;  
 Saito, Yasuhiro; Hidaka, Hidemasa  
 CORPORATE SOURCE: Biosci. Lab., Meiji Seika Kaisha, Ltd., Sakado,  
 350-02, Japan  
 SOURCE: Nippon Eiyo, Shokuryo Gakkaishi (1993), 46(2), 123-9  
 CODEN: NESGDC; ISSN: 0287-3516  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Japanese  
 CLASSIFICATION: 18-4 (Animal Nutrition)

## ABSTRACT:

The effects of administration of lactose (LA), **fructooligosaccharides** (FO) and other oligosaccharides in the diet on absorption of Ca, Mg, and P in weanling male rats were examd. by in vivo studies. In rats fed the FO diet, Ca, Mg, and P absorption was significantly higher than in rats fed the LA diet. FO had a dose-dependent effect on mineral absorption. The enhancement of Ca, Mg, and P absorption by FO persisted for 1 mo. A significant increase in the ash and mineral contents of the femur was obsd. in rats fed the FO diet as compared with controls. FO had a pos. effect on mineral absorption. Galactooligosaccharides and raffinose had similar but variable effects. Isomaltoligosaccharides had no effect. There was a pos. correlation between mineral absorption and L-lactate concn. in the cecum. L-Lactate concn. in the cecum might have a direct effect on mineral absorption.

SUPPL. TERM: mineral absorption **fructooligosaccharide** lactose  
 diet; oligosaccharide diet mineral absorption  
 INDEX TERM: Mineral elements  
 ROLE: BIOL (Biological study)  
 (of femur, dietary oligosaccharides effect on)  
 INDEX TERM: Biological transport  
 (absorption, of minerals, dietary oligosaccharides effect  
 on)  
 INDEX TERM: Intestine, composition  
 (cecum, org. acids and pH of, dietary  
 oligosaccharides effect on)  
 INDEX TERM: **Bone**, composition  
 (femur, mineral compn. and wt. of, dietary  
 oligosaccharides effect on)  
 INDEX TERM: Oligosaccharides  
 ROLE: BIOL (Biological study)  
 (fructose-contg., mineral absorption response to dietary)  
 INDEX TERM: Oligosaccharides  
 ROLE: BIOL (Biological study)  
 (galactose-contg., mineral absorption response to  
 dietary)  
 INDEX TERM: Oligosaccharides  
 ROLE: BIOL (Biological study)  
 (isomaltose-contg., mineral absorption response to  
 dietary)  
 INDEX TERM: 7439-95-4, **Magnesium**, biological studies  
 7440-70-2, **Calcium**, biological studies  
 7723-14-0, **Phosphorus**, biological studies  
 ROLE: BIOL (Biological study)  
 (absorption of, dietary oligosaccharides effect on)  
 INDEX TERM: 63-42-3, Lactose 512-69-6, Raffinose 125692-63-9,  
 Meiologo P 129038-02-4, Cup Oligo P 148465-13-8,  
 Isomalto 900P  
 ROLE: BIOL (Biological study)

BEST AVAILABLE COPY

INDEX TERM: (mineral absorption response to dietary)  
64-19-7, Acetic acid, biological studies 79-09-4,  
Propionic acid, biological studies 79-33-4, L-Lactic acid,  
biological studies 107-92-6, Butyric acid, biological  
studies 10326-41-7, D-Lactic acid, biological studies  
ROLE: BIOL (Biological study)  
(of cecum, dietary oligosaccharides effect on)

=>

BEST AVAILABLE COPY